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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,673	06/20/2003	Yonghe Liu	TI-35816	6068
23494 7590 07/10/2008 TEXAS INSTRUMENTS INCORPORATED P O BOX 655474, M/S 3999 DALLAS, TX 75265				
EXAMINER				
ABBASZADEH, JAWIED A				
ART UNIT		PAPER NUMBER		
2115				
NOTIFICATION DATE		DELIVERY MODE		
07/10/2008		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

[uspto@ti.com](mailto:uspto@ti.com)

[uspto@dlmail.itg.ti.com](mailto:uspto@dlmail.itg.ti.com)

### Office Action Summary

**Application No.**

10/600,673

**Applicant(s)**

LIU, YONGHE

**Examiner**

JAWEED A. ABBASZADEH

**Art Unit**

2115

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-10, 15-30 is/are rejected.
- 7) ☒ Claim(s) 4-5, 11-14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

Claims 1-30 are presented for examination.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-3, 6-10, 15-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walton et al. (hereinafter 'Walton') US 2003/0125040 in view of Balakrishnan et al. (hereinafter 'Balakrishnan') US 7,035,240.**

As to claim 1, Walton teaches an access point having a priority queue [0406];  
a schedule information vector frame comprising:

one or more schedules, corresponding to one or more stations,  
respectively [0093]; and

an algorithm for calculating transmission time duration of downlink data from the access point to each of the stations [0419—size of the payload is directly related to the transmission duration and 0428—"used for downlink"],

wherein the access point [0088—"scheduler is shown as being implemented within the base station"] originates and transmits to the one or more stations the SIV frame of the schedule [0482—"The schedule...may be conveyed to the scheduled terminals"] having a transmission order based on the transmission time duration calculations stored within the priority queue of the access point [0502—"The priority of

each terminal may be derived based on one or more metrics...as described above" (payload size is one of the metrics)]. Walton does not teach that the schedule indicates wake-up times for data transmission.

Balakrishnan teaches a similar system that schedules data transmission and sends the schedule to node involved in receiving data [col. 14, lines 5-9]. Balakrishnan further teaches the one or more stations selectively awake from a sleep mode for data transmission therewith based on the schedule and the transmitted schedule includes the wake-up times [col. 14, lines 5-14, col. 12, lines 9-15]

It would have been obvious to one of ordinary skill in the art to have combined the teachings of Walton and Balakrishnan because they both rely on scheduling when transmitting data. Specifically, Balakrishnan improves on Walton's system by allowing the transmission schedule to indicate when the receiving stations should be turned on. This improvement allows power to be saved by only allowing the receiving stations to be powered on when data is being transmitted.

As to claims 2-17, Walton and Balakrishnan clearly teach the claimed limitations.

As to claims 18-30, Walton and Balakrishnan teach the system as cited in claims 1-17. As such, Balakrishnan and Hsu teach the method to operate the system.

***Allowable Subject Matter***

Claims 4-5, 11-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

Applicant's arguments with respect to claims 1-30 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **JAWEED A. ABBASZADEH** whose telephone number is (571)270-1640. The examiner can normally be reached on Mon-Fri: 7:30 a.m.-5:00 p.m..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas C. Lee can be reached on (571) 272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jaweed A Abbaszadeh/  
Examiner, Art Unit 2115  
7/2/2008

/Thomas Lee/  
Supervisory Patent Examiner, Art Unit 2115